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THE CONSERVATION OF BIOLOGICAL DIVERSITY

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Natural resources are vital to sustaining the world's human populations. Biological resources are key to conserving water, soil, and air quality, but are often overlooked in soil and water conservation projects. The millennia of natural selection and adapation to local environments is expressed in great genetic diversity among and between species. Development, in the economic and social sense, in recent decades has perceptibly increased the homogenization of the worrld's human needs and desires. This is also occurring with heavily used biological resources. such as plants used as crops and animals grown for food. Since future development of crops and livestock depends fundamentally on gene or allelic diversity, the need for conservation of biological resources is obvious. Furthermore, developments in gene transfer technology have supported the dogma of "any gene to any species". Thus, all biological resources become candidates as gene resources to meet human needs. Therefore, conservation of biological diversity for its eventual use by humans is not simply a responsibility of the practitioners of agriculture and forestry, the traditional users of genetic resources, but is extended to the global human population. The movement to conserve biological diversity has gained momentum, but unfortunately, there is polarization between those who are concerned with the conservation of nature in general and those whose primary activities are to exploit biological resources or their natural habitats for urban and industrial uses, for agriculture, for water development projects, or surface mineral mining. A global biological conservation plan must expect dedication to conservation practices at international government levels all the way to individuals in villages and communities. Incentives are required beyond "for the good of nature". Endowments or trusts provide the best insurance for perpetual care of biological resources beyond the life of a governmental regime or particularly influential individuals. There ar inevitable compromises to be made and some biological resources will be lost. The goal of avoidance of gene losses by strongly integrated *in situ* and *ex situ* conservation seems to operationally and socially acceptable. The framework for the facilitation of the integrated approach is the main theme of this presentation.